

Bird Notes from Willis Island

By CAPTAIN J. K. DAVIS, Commonwealth Director of Navigation, Melbourne.

Communicated by A. H. Chisholm, State Secretary, Queensland.

Willis Island, in the Coral Sea, is 250 miles N., 81 deg. E. of Cairns. It is the southern of a group of three islets, being larger and higher than either Mid Islet or North Cay, which lie N.N.E. four and ten miles respectively. The group was surveyed in 1860 by H.M.S. *Herald*, Captain H. M. Denham, R.N., F.R.S., but very little information was obtainable, up to 1921, as to its climate or the nature of the reefs surrounding the central land mass. The necessity for a cyclone-warning station on an island in the Coral Sea had been urged for years by meteorologists and by the inhabitants of Queensland. Recently the Navigation Act, of 1920, requiring all ships over 1600 tons to be equipped with wireless, had come into operation. The question to be answered was, "Is it safe for a party to remain on the island during the hurricane season, considering its size and the height above the sea."

"The information required to answer such a question," writes Captain Davis, in a report recently presented to the Commonwealth Parliament, "could only be obtained by an observer remaining on the island during the season of bad weather. Considerable doubt had been expressed as to the island being *safe* during the season of bad weather. I had formed the opinion that such apprehension was not well founded; still, it did not appear right to recommend that others should go and reside there during the cyclone season until an attempt had been made to obtain definite information. As I was aware of the great value it would be to shipping, I strongly recommended the establishment of an experimental station for the season 1921-1922. I offered to undertake the work, and to remain on the island (for the first season) as meteorological observer. Approval was given for the establishment of a wireless station on Willis Island, and I was instructed to make all necessary arrangements to ensure that it should be in operation as soon as possible."

Captain Davis arrived in Brisbane, *en route* to Townsville and Willis Island, during October of 1921. While he was in Brisbane, the attention of Captain Davis was drawn to the ornithological possibilities of the lonely little outpost in the Coral Sea, and he was asked if he would make observations and collect specimens. While diffident about his ability to carry out this work, Captain Davis readily agreed to do what he could. He was then furnished with a text book and brief directions regarding skins and eggs. How well the Director of Navigation carried out the additional obligation which he took upon himself is to become apparent. It should be remarked that the devotion of Captain Davis to this work was no more than was expected of

a man holding his fine record of exploratory service with Shackleton in the great Antarctic. Moreover, he simply lived up to the traditions of his great calling—to the examples of sympathy with science and natural history displayed in Australian waters by such other notable naval officers as Captain Blackwood, of the *Fly*, Captain Wickham and Captain Stokes, of the *Beagle*, and Captain Owen Stanley, of the *Rattlesnake*.

On little Willis Island, a "speck" only 583 yards in length and 212 yards at its greatest width, Captain Davis and his assistants remained from 15th October, 1921, until 16th April, 1922. Returning to Brisbane, the Director left here a large box of birdskins and many specimens of eggs, together with an informative diary compiled from day to day on the island. After examination, the specimens were sent on to Mr. A. J. Campbell, C.M.B.O.U., who was courteously granted permission by the authorities of the National Museum to compare them with the skins in the collections there.

The notes which follow are from Captain Davis's diary. Scientific names have been added according to the R.A.O.U. Check-list, second edition.

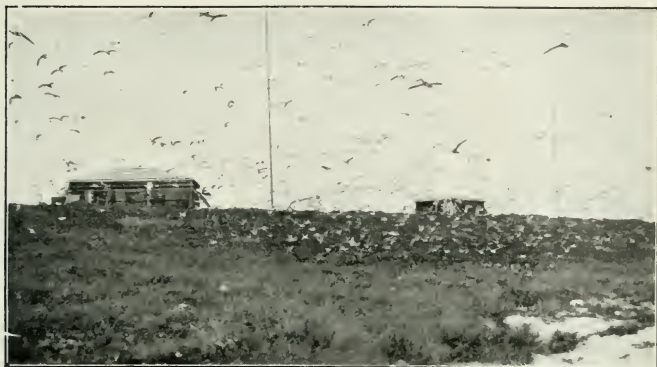
***Sula dactylatra*.** Masked Gannet (called by Davis "White Gannet").—Nesting-time, October and November. They nest on the beach, and lay one egg. Specimen No. 1 picked up on coral beach. Gannet sitting at time. No nest apparent. Taken from north side of island; fresh when blown. The birds number about 75. Forty were counted in a rookery on the eastern beach. The White Gannet is all white except wing and tail feathers, the beak yellowish stone colour, eyes yellow. The only difference observed between male and female is that the male has blue-grey feet, while the female has stone-yellow feet and also a brighter yellow beak. The Gannets do not leave the beach, but having selected a portion for a rookery, always return to it. The young are covered with down at birth, and have a grey or black beak. They gradually fledge, becoming covered with bluish grey feathers, which eventually turn white. The young are about four months getting this grey plumage, and by this time are able to fly, although they are still fed by the parent, and do not stray very far from the particular spot where they were born. The White Gannets appear to live chiefly on flying fish. One of them, while being pursued by a Frigate Bird, vomited up a flying fish, which I afterwards measured, and found to be 13 in. from head to tip of tail.

March 26th, 1922.—The young Gannets born in December are now fully fledged and just able to fly. They are still fed by the parent birds.

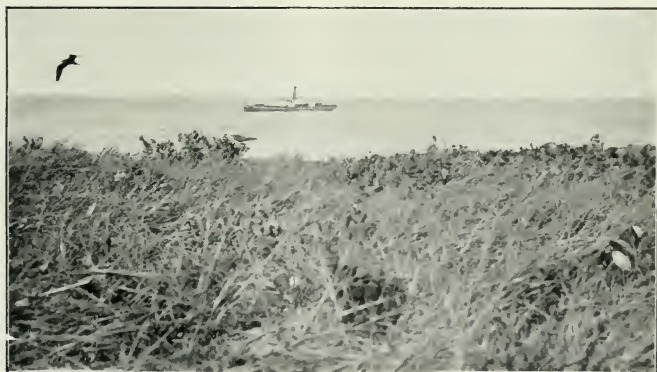
April 6th, 1922.—The White Gannets have been separating from the rookery in pairs during the last fortnight, and selecting positions on the beach. To-day I found a couple with an egg. There was no nest. The egg is just laid on the coral beach sand about high-water mark. This is the first Gannet's egg I have seen this year.

April 13th, 1922.—I observed a White Gannet sitting on two eggs to-day. This is the first time I have seen more than a single egg, which appears to be the usual number.

***Sula leucogaster*.** Brown Gannet.—Nesting time, October and November. Nest on the grassed portion of the island, and on its upper slopes. Nest consists of pieces of coral, and twigs laid loosely on the grass. Lays one or two eggs. Specimens obtained on March 26th,



Wallis Island Wireless Station.



Wallis Island anchorage and steamer.

1922. Number about 50. They have no settled rookery like the White Gannet. The Brown Gannet is of a rich brown plumage, with a stone-coloured beak; breast and abdomen are white; feet whitish yellow, same colour as beak. On the beach they are to be seen sometimes in company with the other birds at the north-west end of the island, at sunset, or on top of the island with their chicks. The young when born are covered with white down, which gradually gives place to feathers. When about four months old they are covered with brown plumage, except the breast and abdomen, which are of a rusty white colour, a yellowish grey bill and yellow feet. They are able to fly at this stage, but do not leave the spot where they were born, being fed by the parent birds on an average twice a day. At this stage they evidently possess a healthy appetite, and thrust nearly the entire head down the parent birds' throat in an endeavour to satisfy it. They live on fish caught at sea in the same way as the White Gannet. The beak of the male is of a darker colour than that of the female, which is light stone colour, the male slate. They are not as numerous or as tame as the White Gannet, being difficult to approach closely.

March 26th, 1922.—A chick born in December is now fully fledged and able to fly, although still fed by parent bird. The colour of the breast is a dirty brown, instead of white as in the adult bird.

April 4th, 1922.—Brown Gannets are arriving at the island in numbers, and nesting on the lower slopes of the island. They lay one or two eggs. Several nests contain two.

Sula sula. Red-legged Gannet.—One of these birds was seen on December 17th, and since then they have at intervals been seen. There are generally a couple of them to be seen after north-west winds.

Puffinus pacificus. Wedge-tailed Petrel.—There is a considerable number of "Mutton Birds" on the island, and they have riddled it with burrows. The birds are more like moles than birds. The nest or burrow is easily found, as there is always a small heap of sand on the grass at the entrance, which has been excavated by the bird. The young are covered with a grey fluff, and are only seen when dead. Several were noticed half eaten by the hermit crabs, which are often seen in the Mutton Bird's burrows. I have never seen a young Mutton Bird about in the daytime, although the old birds are often in the burrow all day. These birds are either very tame or very stupid, as it is difficult to avoid walking on them at night-time. An egg was taken from a burrow that had fallen in, the bird flying away at the time. Apparently only one egg is laid. Egg moderately fresh. Taken at north-west end of island. There are probably 100 to 150 of these birds.

March 23rd, 1922.—These birds leave the island during March. There are only a few to be seen at night time now.

March 25th, 1922.—Observed a young Mutton Bird, half fledged, in one of the burrows at the south-east end of island. They are covered with black fluff, and the beak is black.

Sterna fuscata. Sooty Tern.—Probably the most numerous variety on the island. They alight on any sandy patch within the grassed area, but do not frequent the beach. They apparently lay in September, as on our arrival here the young were partially fledged (October 15th), and they leave the island, or at least the rookery where they are born, about December 15th. On our arrival the young were just beginning to fly, and appeared very helpless. The old and young birds keep up an incessant screaming noise at night time, which can be heard from the anchorage half a mile off. There is a heavy mortality among the young birds, but from what cause could not be determined by us. Eggs were not obtained during 1921. As soon as the young birds were able to fly, about December 15th, the

sand patches on the higher parts of the island were suddenly deserted, and the Terns apparently migrated. On February 8th they were back again at night time, flying over the island and making the shrill, screaming noise which distinguishes them. Shortly after, one of these birds broke a wing flying at night time against the living quarters. Since the nesting season none of these birds has been observed on the island, although they have been seen flying over it. Number impossible to estimate. There are more of them than any other kind.

March 12th.—The Terns when they do come to rest at about midnight settle down on the beach. I observed a great number of them asleep there on a moonlight night, although at the same time a number were still screaming overhead.

March 25th, 1922.—These birds are to be seen in greater numbers in the daytime. To-day, for the first time, they are perched on the beach in a big flock.

April 4th, 1922.—Terns observed on top of island for the first time. They are apparently going to nest immediately.

April 8th, 1922.—First egg obtained to-day.

April 13th, 1922.—The Sooty Terns are now nesting all over the island; they keep an incessant chatter, and settle down in flocks of a hundred or so, fighting and screaming like a mob of angry bees. Several eggs, I notice, have been broken, and the contents gone; this is probably the work of the Rails, which are seen darting about in the long grass close to the Terns' nesting places.

Anous stolidus. Noddy Tern.—Resembles a pigeon. All brown plumage with black on wing and tail coverts and a little white on forehead. Has black legs, feet and beak. These birds are similar in size and appearance to the Mutton Bird, but closer observation reveals many differences. They are more graceful, and I consider them the prettiest birds on the island. They assemble in large flocks on the edge of the beach, just above the level of the sea, and apparently live on small food they obtain on the shore. They are always seen together in flocks, and form a black mark on the coral beach like a thunder cloud. They nest on the grass some distance from the beach, but on the lower ground. Their nests are built of a few bits of coral and seaweed grass, merely a litter laid on the grass. Specimen egg No. 2 was taken from the nest, the bird sitting only one egg. Egg fresh when taken, November 25th, 1921, north side. On December 10, 1921, a chick of this bird was observed, which had apparently just been born, covered with feathers rather than down. On January 31st, 1922, the young bird was fully fledged and just able to fly, although at the same time there are other birds still sitting on eggs.

February 19th.—The bushes on the island have grown to a height of 2 ft. 6 in. These birds during the day time frequently perch on the branches of the bushes in preference to congregating on the beach at the water's edge.

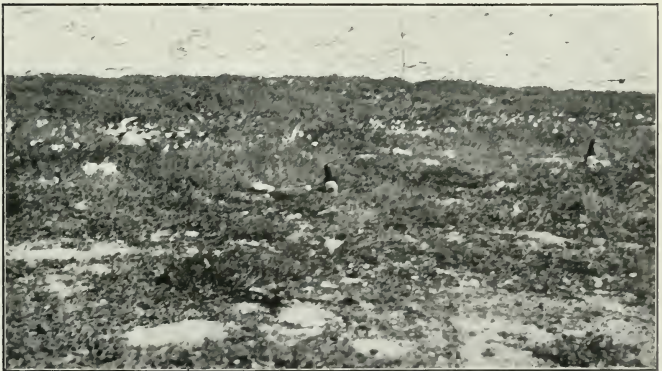
March 7th.—There appear to be more of these birds about lately. In the morning many of them are to be seen perched, sometimes singly, other times in groups on the bushes. I have also observed them flying with loose pieces of grass in their beaks, but what object this serves I do not know. Possibly it is the mating season at present.

March 12th.—Number varies. At present there are at least 150 of these birds on the island.

March 17th, 1922.—The birds are now nesting, the nest being built on top of the dwarf bushes about 2½ in. high, which are scattered all over the higher parts of the island. The nest is of grass and pieces of dry coral (*Montipora*). I obtained an egg from one of these nests to-day quite fresh. There are more of these birds on the island at



Beach scene, Wallis Island.



Wallis Island Sea-birds nesting.